"It is not an Army that we must train for war; it is a nation."—
Woodrow Wilson, 1917.

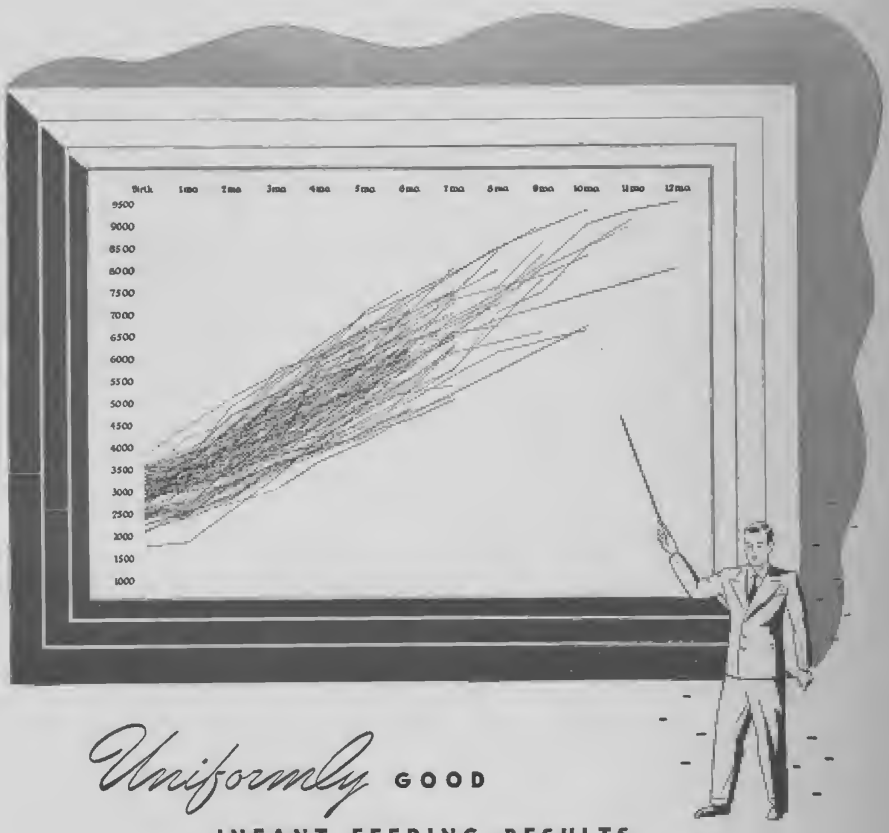
(It seems that we are about where we were 24 years ago!)

BULLETIN

of the

Mahoning County Medical Society

Vol. XI No. 9
September 1941



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BULLETIN
THE MAHONING COUNTY MEDICAL SOCIETY

Published monthly at 787 Wick Avenue, Youngstown, Ohio — Annual Subscription, $2.00

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PRESIDENT'S PAGE

"BETTER IS HALF A LOAF THAN NO BREAD."—JOHN HEYWOOD

Prior to the enactment of the Ohio State Pre-Marital Law, the Council of the Mahoning County Medical Society and later the Council of the Ohio State Medical Association voted "not to endorse but not to oppose" the enactment of such legislation. It was pointed out, (1) that the proposed law would better include a thorough physical examination to determine *any* disease that might contraindicate marriage, rather than a single condition, syphilis; (2) that the desired end, i. e. eradication of disease, might better be attained by educational methods than by compulsory legislation which would be subject to evasion. In face of this advice, the Ohio Assembly enacted a pre-marital anti-syphilis law and put the burden of an honest enforcement of the act squarely on the shoulders of the medical profession of Ohio. As conscientious physicians and as good citizens we will accept the responsibility and hope that it will eventually lead to better and more comprehensive use or thorough pre-marital physical examinations.

The general public and some doctors appear to be somewhat confused as to certain provisions of the law. A certain amount of misleading information has been given out in the lay press.

In the first place undue importance has been given to the serological test. The law specifically provides that *"no license to marry shall be issued until there shall be in the possession of the clerk of the probate court a statement or statements, signed by a duly licensed physician of the State of Ohio—that each applicant, has submitted to an examination to determine the existence or non-existence of syphilis, which examination has included a standard serological test or tests for syphilis, and that in the opinion of the examining physician the applicant is not infected with syphilis, or, if so infected, is not in a stage of that disease which is communicable or likely to become communicable."* It further provides that *"a standard serological test for syphilis shall be a test approved by the State Department of Health and shall be made at a laboratory approved to make such tests by the State Department of Health."*

In brief, a man and woman wishing to marry will go to their family doctor or any physician of their choice, provided he is licensed to practice in Ohio, who will make his examination including taking blood for serology, or he may send the applicants to an approved laboratory to have the blood taken. What is quite obvious to all physicians, but not generally known to the public, is that the serological test is only a part, and often a minor part, of the examination essential to give the physician the information necessary to carry out his part in the provisions of the law.

The lay press has repeatedly stressed the increased cost of marriage which the pre-marital law entails. Here the law wisely left to the physician that discretion in assessing fees which has been his perogative from time immemorial. As has been his practice in charging for services in other conditions, fees will be based on the applicants' earning ability. Those who can't pay will receive just as thorough and conscientious examination as those who can pay the maximum fee. The State Board of Health Laboratory and most private and hospital laboratories will do serology free for indigents. Those of moderate means will be given a thorough examination for a moderate fee.

On the other hand the parents of young people who are spending hundreds of dollars on the most expensive wedding trousseaus will undoubtedly want to insure that the bodies which they are draping with clean and shining raiments are equally clean and healthy, and they will demand

(Continued on Page 291)

BULLETIN of the Mahoning County Medical Society

SEPTEMBER 1941

Editorial---

EDITOR LEAVES TOWN!

The editor passed to me the job of writing his page this month, he being too busy getting his seed-catalogues, farm implements and fishing tackle ready for invasion of his Viriginia plantation. So, here's a little of a great deal that I'd like to say:

Enjoy Your Bulletin?

If not, the reason must be you failed to read it. However, your subscription is due each month on receipt thereof, payment being made by - reading the ads - or if you are in a hurry to remit, turn to the second page and look over the list of advertisers, they have made this booklet possible, and "Patronize Them", they deserve it.

Through the pages of this publication, you are constantly being informed of the activities of the Society whether it be Social, Scientific or Business. This information is not always easy to get rounded up but the efforts of those who contribute their time, whether it be gathering news, writing articles or passing information on that can be put in shape, is much appreciated.

Among those faithful servants—whose monthly contribution has never failed us in years—is Dr. James L. Fisher, whose page "The Medical Crier" is not only widely read but enjoyed, if he doesn't get too serious. Dr. Louis S. Deitchman's efforts from time to time has proved very helpful. The news-gatherers of the two hospitals, Drs. G. E. DeCicco and Saul Tamarkin, kick in with personal items of interest to all.

"Patronize your advertisers and mention the BULLETIN".

MARY HERALD, Business Mgr.

Youngstown Symphony Orchestra

The Youngstown Symphony Society's tickets for the 1941-42 season will be for sale beginning September 8th.

With the most outstanding program ever offered, the Symphony Society looks forward to a banner year for the Orchestra. With reference to the program, Thomas L. Sidlo of the Cleveland Orchestra stated, "to think that you can offer stars such as Iturbi, Tuminia, Balokovic, Schipa, and Grainger, in a group of seven concerts at prices ranging from $7.50 to $3.00, is almost unbelievable."

The funds which enable the Symphony Society to carry on are derived wholly from ticket receipts. The studying and hearing of symphonic compositions by over 20,000 school children is part of their regular school work.

The professional people of Youngstown have been most generous in their support of this real civic asset and it is hoped that such loyalty will continue.

Reservations may be made by calling the Symphony Office.

This year "Everybody goes to the Symphony."

DIVERTICULITIS OF THE COLON

By ANDREW G. LASICHAK, M. D.
Intern, St. Elizabeth's Hospital

(This paper delivered before Mahoning County Medical Society, June 17th, 1941)

Diverticula of the bowel are outpouchings or sacculations from the bowel. There are two types; congenital or true, and acquired or false. The congenital contains all of the coats of the bowel; Meckels diverticulum is an example. This occurs in the small intestine. The acquired or false contains two coats, viz. mucosa and serosa. This occurs more commonly in the colon.

Diverticula was first described in 1849 by Cruveilhier and again in 1853 by Virchow who called it chronic adhesive peritonitis. Today, the latter is called peridiverticulitis. In 1898, Graser first discovered this condition as being a distinct disease entity, and since that time, many contributions to be literature have been made. In 1912, Haenisch, a Roentgenologist, first demonstrated this by x-ray.

This condition is predominant in the fifth decade of life in which the incidence is about five per cent, of these about 12 to 15% are inflamed and about 20% of the latter go to surgery.

A cursory examination of the literature reveals a wide divergence of opinion as to the cause of diverticula. In the following, I have noted the most popular theories regarding the etiology:

(1) OBESITY—by fat infiltration of the muscle wall causing a weakness.
(2) STRAINING AT STOOL.
(3) HARSH CATHARTICS.
(4) BLOOD VESSELS—Drummond states they play the same role in production of diverticula as the spermatic cord does in the production of inguinal hernia. This takes place more commonly between longitudinal bands and from mesenteric border.

Graser points out that chronic venous congestion is a factor and that persons suffering of cardiac lesions are more subject to diverticulosis.

From what ideas have been put forth regarding the etiology, the most that can be said is that for some cause, a weakness exists in the intestinal coats, and by reason of this weakness, a pouching takes place when undue pressure arises.

The cause and manner in which diverticula are produced are best described by Mailer, who, in a study of microscopic anatomy of specimens of diverticula described their development as first appearing as pits in the mucosa. The mucosa and submucosa extend as far as the circular muscle and this is spoken of as the prediverticular stage. When undue pressure arises, there is a gradual pushing through of this sac through the muscle wall into the serosa until finally you have a diverticulum lacking a muscular coat.

Thus a rather redundant mucosa results, with a narrow neck where it passes through the muscular coats. Feces or rarely a foreign body enters it but cannot be expelled since the diverticulum does not contain a muscular coat. This sets up an inflammatory process. At first there is edema of its lining, followed by infection, resulting in a condition called diverticulitis. This is analogous to and often spoken of as "left sided" appendicitis. This progresses, involving the serosa and adjacent tissue of the colon to a condition which we call peridiverticulitis. One of three things may now take place:

(a) Subsidence of infection.
(b) Perforation with fistula or abscess. The perforation is usually retroperitoneally and rarely into the abdominal cavity, causing generalized contamination.

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The Secretarial Service provides a direct line from your office to the Bureau so that every call to your office also rings at the Bureau. When your phone is not covered our operator answers as your secretary. All information and appointments are recorded for the physicians attention. Providing no regular office help is employed, this function serves the place of a secretary at a fraction of the cost.

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J. L. PRICE, Mgr.

(c) Scarring with obstruction. The obstruction in this incident is peculiar in that it takes place from without inward in contradistinction to carcinoma, which is from within outward.

Diverticula, even though they may occur in the entire intestinal tract, it is worthy to note that ordinarily only those in the sigmoid give rise to complications. This may be due to the small lumen of the sigmoid and the fact that the stool is firmer. At present it is questionable whether carcinoma is coincidental with diverticulitis or secondary to a chronic irritation.

The most common symptom of diverticulitis is pain of some kind. It may range from sharp pain to a boring type which is present more or less constantly. We might say there is no typical pain in diverticulitis. It is usually located in the left lower quadrant and accompanied by localized tenderness and rigidity of the muscles, nausea, vomiting, rising temperature, rising pulse, and leukocytosis. Constipation may be present or it may alternate with diarrhea. Tumefaction may be noted which represents a gross inflammatory reaction about the diverticulitis. Its presence is not particularly serious, and must not be construed as indicating a malignant condition. In the event that a vesiculo-intestinal fistula is present the patient complains of gas and feces passing through the urethra. The severity of the symptoms depends upon the extent of the underlying pathology.

Roentgenologic examination holds first place among diagnostic procedures in the establishment of the diagnosis. A barium enema, certainly not a barium meal, should be given since the latter tends to produce stasis proximal to the lesion. Diverticula manifest themselves as knob like projections. There is also a saw-tooth like appearance which is due to the contraction of bands of circular muscle.

Protoscopic examination is of value only when the lesions are low.

The treatment of diverticulitis is preferably medical. As an inflammation elsewhere in the body, heat and rest are the chief weapons. In the acute cases the therapy consists principally of rest in bed, heat to the abdomen, sedatives, anti-spasmotics, non-residue diet, and the sensible use of mineral oil. Occasionally following barium enema patients state they feel relieved and in view of this many advocate giving barium, ounces ½ b. i. d. Not too infrequently patients in whom symptomless diverticula are found are usually told that the diverticula have no significance and are dismissed without further instructions. This is believed to be a mistaken attitude on the part of the medical profession. The best time to treat diverticulitis is when it is diverticulosis. In the event of complications as: (1) acute perforation, (2) abscess, (3) fistula, (4) inflammatory obstruction, surgery should be considered carefully since it carries a rather high mortality. This usually consists of incision and drainage, cecostomy, colostomy, or resection.

Case Report

On March 9, 1941, J. S., aged 50, a steel worker, was admitted to our medical service complaining of pain in the left lower quadrant. He gave a history to the effect that for the past two years he has had epigastric distress bearing no relation to meals or type of food eaten; also of constipation and loose stools following changing of position, especially on arising in the morning.

The day previous to admission he had a prickling sensation in his left lower quadrant. He regarded this as insignificant and pursued his usual occupation. He slept well that night and shortly after arising he had two small liquid stools. That same day following the noon meal he developed a very sharp penetrating pain in his

left lower quadrant accompanied by nausea and vomiting. The family doctor was summoned, a hypodermic given, and the patient advised to enter the hospital.

On admission, physical examination revealed a hypersthenic adult, apprehensive, and appearing to be very acutely ill. Temperature 102.4°, pulse 100, respirations 28. Skin: Very warm and moist. Face flushed. EENT, negative. Lungs, clear. Heart, slightly enlarged. Normal rhythm. B.P.: 180/120. Abdomen: Moderately distended. Percussion note tympanitic. There was considerable amount of tenderness and rigidity in the left lower quadrant, interfering with detailed examination at this time.

Rectal examination. Sphincter spastic. No masses. Prostate soft but not tender.

Extremities. Negative. Reflexes normal.

The family and past history and systemic review were essentially negative.

On admission urinalysis was negative RBC 5,000,000, HB 15 gm. WBC 21,000—stabs 21, segs 65 lymphs 6. A flat plate of the abdomen revealed a moderate amount of gas in a number of loops of small intestine. This was thought to be due either to an obstruction or an ileus. The patient was treated with hot stupes, Wangensteen's suction, Pertressin, followed by a 1-2-3 enema. Following the latter, patient complained so bitterly with pain that morphine was administered. The following day the patient was again x-rayed following a barium enema. The findings were those of a perforated diverticulum in the descending colon about two inches in length and one inch in width projecting upward, medially and posteriorly. A smaller diverticulum was located in the sigmoid portion of the colon.

Now we realize why this patient experienced a prickling sensation in the left lower quadrant. He did so because the diverticulum was beginning to perforate. We also know that following his noon meal the colon was activated by gastro-colic reflex disturbing the diverticulitis and resulting in perforation. Pain was likewise experienced following Petressin because insult was further added to the already inflamed bowel. In diverticulitis one wishes to splint the colon and this is best done by opiates. In diverticulitis a change in bowel habits is due to a spasm of the colon of long duration.

At the point of constriction a small ball of feces forms that acts like a valve. The colon attempts to get rid of this by calling on the natural lubricant of the bowel, viz., mucus. The bowel proximal to the constricted area dilates with this mucous secretion and when patient lies down this ball of feces releases itself and the mucus passes through thus giving the patient his liquid stool.

After the diagnosis was established the patient was placed on the following regime:

(1) Absolute bed rest.
(2) Morphine.
(3) Belladonna.
(4) Fluid, intravenously.
(5) Stupes.
(6) Wangensteen's suction.
(7) Soft, high caloric, non-residue diet.
(8) Mineral Oil, drams 1 t. i. d. and increased until a soft stool forms.
(9) Sulphatiazole.
(10) No milk or Petressin.

On his third hospital day patient was re-examined and a large soft tender mass about four inches in diameter was palpated in the left lower quadrant. Auscultation of the abdomen revealed a soft high pitched peristaltic sound which is indicative of partial intestinal obstruction with distention. Under the above therapy pain ceased, the abdomen was decompressed, the patient's general condi-

tion improved, and on the sixth day, the temperature was normal and remained so until his last hospital day.

On discharge, patient was placed on a bland diet with bland residue. He was advised to refrain from seasoned foods, bran, berries, nuts, and pop-corn. The choice of laxatixes which we advised were Bassoran, Metamucil, or similar products taken with plenty of water. He was advised against the straining of stools. He was also instructed how to use Glycerine suppositories and low tap water enemas to educate the bowels to move regularly. Approximately two months later the patient's abdomen was rechecked and no masses were palpable. A flat plate of the abdomen revealed a small globule of barium present in the region of the perforation previously demonstrated by x-ray. A barium enema was given, the patient re-x-rayed and we were unable to demonstrate any connection between the colon and the globule of barium, nor the diverticulum in the sigmoid colon.

In conclusion, this paper on diverticulitis was presented to bring out the fact that contrary to teachings in the literature, conservative treatment does have definite value in handling cases of diverticulitis of this nature.

THE DIAGNOSIS AND TREATMENT OF OBSTRUCTION OF THE SMALL INTESTINE

By W. T. Krichbaum, M. D.
Intern, Youngstown Hospital Association
(This paper delivered before Mahoning County Medical Society, June 17, 1941)

Until a few years ago, it was generally admitted that there had been very little progress in reducing the mortality of acute intestinal obstruction. Besides the paraoral administration of fluid and electrolytes, the treatment consisted chiefly of enterostomy with or without release or removal of the obstructing mechanism. The average mortality from these surgical procedures was 40 to 100 per cent depending upon the duration and nature of the obstructing lesion, the condition of the patient, and the surgical procedure performed.

It seems that in the past years enterostomy was used in the treatment of acute mechanical or paralytic ileus of the small bowel because no other more effective treatment was known. Within the last ten to fifteen years, however, medical procedures have replaced the surgical treatment of acute dilatation of the stomach and paralytic ileus of the small bowel. The medical treatment has consisted of gastric lavage, spinal anesthesia, pituitary extract, morphine, intervenous saline and glucose, and rectal tubes.

In 1931 Wangensteen was the first to suggest and use constant suction applied to an indwelling catheter in the treatment of acute mechanical ileus. Since then his ideas regarding the therapeutic problem in intestinal obstruction have been generally accepted.

The whole problem of ileus resolves itself into differentiation between simple and strangulating obstruction and acute obstruction of large and small bowel. By simple ileus is meant one on a mechanical or neurogenic basis (spastic or paralytic.) By strangulating obstruction is meant one in which the blood supply, either arterial or venous, to the bowel has been shut off.

The first step in the treatment of acute obstruction of the small bowel is a carefully taken and carefully evaluated history. The patient complains of intermittent, crampy, colicky pain, nausea and vomiting. On physical examination, the abdomen is

(Continued on Page 279)

Fall Work Begins

with—

DR. S. MILTON GOLDHAMER, Assistant Professor of Internal Medicine, Research Assistant, Thomas Simpson Memorial Institute for Medical Research, Ann Arbor, Michigan.

• ● •

Subject—

Diagnosis and Treatment of the Anemias

(Lantern Slides)

• ● •

Important, timely—"hot" in other words,—the subject and the speaker rate a fine turn out. Dr. Goldhamer, working with Dr. Sturgis, has printed about 50 articles dealing with studies of diseases of the blood and blood-forming organs. He has been in charge of the "Blood Bank" at University (of Michigan) Hospital since its inception.

• ● •

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8:30 P. M.

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Professor of Medical Research, University of Texas School of Medicine.
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Council on Foods and Nutrition, American Medical Association.
Sub-committee on Nutrition, Division of Medical Sciences of the National Research Council.
Council for the Central Society for Clinical Research.
Committee on Nutritional Research, National Foundation for Infantile Paralysis, Inc.

• ● •

Thursday, October 30th—Afternoon and Evening

• ● •

All of our Society will be proud to welcome to all the sessions and for dinner, our fellow physicians of Ohio and Pennsylvania, Nurses of District No. 3, Dieticians, Dentists and Druggists of this and neighboring communities.

The plan is for Dr. Spies to address us at 4:00 P. M., then Dinner at 6:30 P. M. to be followed by an open forum.

Dr. Spies is anxious that everyone come prepared to ask at least one question on Vitamins—"This is to be the best part of the meeting," Dr. Spies says. Then at 8:30 P. M. he will give a final short summarizing address.

The meeting is planned to cover very intensively the whole subject of vitamins.

• ● •

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YOUNGSTOWN CLUB

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NINETY-FIRST ANNUAL SESSION OF THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA

Hotel William Penn, Pittsburgh, October 6, 7, 8, 9, 1941

Featuring Round-Table Conferences—Question and Answer Periods

INVITATION

The officers and members of The Medical Society of the State of Pennsylvania cordially invite all physicians, residents of Pennsylvania and of adjacent states who are members of, or are eligible to membership in, a county medical society, to attend the scientific sessions of their Ninety-first Annual Meeting. **There is no fee for registration.** Hotel accommodations are ample in the headquarters hotel and near-by hotels.

Concerning the thousands of practicing physicians included in the scope of this invitation it is probably reasonable to state that few of them have attended scientific programs during July, August, and September of the current year. **What better opportunity, then, for graduate study** at the end of a ninety-day rest from medical meetings could be offered than the comprehensive scientific sessions and exhibits extending throughout the four-day period, Monday, Tuesday, Wednesday, and Thursday, October 6, 7, 8, and 9, of the convention of the Medical Society of the Keystone State?

THREE MORNING GENERAL ASSEMBLIES
(Note periods devoted to round-table conferences)

EIGHT SCIENTIFIC SECTIONS—118 ESSAYISTS

Sixteen Out-of-State Guest Speakers

Louis A. Brunsting, Rochester, Minn. "The Sulfonamide Drugs in Dermatology."

Samuel W. Clausen, Rochester, N. Y.
"Prevention and Treatment of Vitamin Deficiencies in Children."

Joseph A. Johnston, Detroit, Mich. "The Physical Aspect of the Adolescent Period."

Meredith F. Campbell, New York City. "Urinary Obstruction in Infants and Children."

Charles A. Waters, Baltimore, Md.
"Has Preoperative Irradiation a Place in the Treatment of Renal Tumors?"

Albert M. Snell, Rochester, Minn. "Changing Conceptions of Portal Cirrhosis."

Maximilian A. Goldzieher, New York City.
"Diagnosis and Treatment of Pituitary Disorders."

James L. Reycraft, Cleveland, Ohio. "Diagnosis and Treatment of Placenta Praevia."

Virgil S. Counseller, Rochester, Minn.
"The Influence of Infection on Abdominal Hysterectomy."

Edward S. Welles, Saranac Lake, N. Y.
"Surgery in the Presence of Pulmonary Tuberculosis."

Leland S. McKittrick, Boston, Mass. "Surgery in the Presence of Diabetes."

William Mather Lewis, Selective Service Director, State of Pennsylvania.
"Medical Choice of Selectees—From the Viewpoint of the Pennsylvania Selective Service Board."

William L. Benedict M. D., Rochester, Minn. "The Surgical Treatment of Glaucoma."

Thomas C. Galloway, M. D., Evanston, Ill.
"Upper Respiratory Tract Obstructions and Their Secondary Effects."

Charles Gordon Heyd, New York City.
"Common Errors in Selection of Patients for Surgery."

Edward J. Stieglitz, Bethesda, Md. "Problems of the Aging."

Charles A. Doan, Columbus, Ohio.
"The More Common Blood Dyscrasias—Their Diagnosis and Treatment."

"I sincerely hope that you and many readers of your Bulletin will find it possible to attend the 91st Annual Convention of the Medical Society of the State of Pennsylvania which will be held at the William Penn Hotel, Pittsburgh, October 6 to 9, with scientific sessions all day Tuesday, Wednesday and Thursday and social entertainment Tuesday and Wednesday evenings to which all your members are cordially invited without payment of any registration or admission fee." (From a letter written by Dr. Walter F Donaldson to the Editor.)

The Diagnosis and Treatment of Obstruction of the Small Intestine

(Continued from Page 275)

found to be distended. The presence of abdominal scars and hernia should be noted. Peristalsis may be visible through the abdominal wall. The presence or absence of rebound tenderness should be ascertained by palpating the abdomen. On auscultation of the abdomen with the stethoscope the presence of borborygmi should be determined as well as whether the intestinal noises are most intense at the height of abdominal pain.

Determination of the values for the blood chlorides, urea nitrogen and carbon dioxide combining power of the blood gives confirmatory evidence of small bowel obstruction, in that a hypochloremia, alkalosis and elevated urea nitrogen are usually present especially if the obstruction is high in the intestinal tract. The most valuable of the laboratory aids is the X-ray film of the abdomen. It should be emphasized, however, that the roentgen pictures unless viewed in the light of the clinical and physical findings may be more misleading than helpful. All the roentgenograms will show is whether there is an obstruction present, whether it is complete or partial, and whether the large or small bowel is involved. Also they will help to determine the position of the indwelling duodenal tube and any increase or decrease in the amount of distension. They will not tell whether the obstruction is paralytic, mechanical or strangulating in nature, which is of great importance in the rational treatment of ileus. One must differentiate these various forms of obstruction by means of the clinical findings. One distinguishes mechanical from paralytic obstruction by the absence of intestinal noises in the latter condition upon ausculting the abdomen. In strangulation obstruction, the abdomen is more tender, rebound tenderness as well as intestinal colic may be present. Shock supervenes sooner in strangulating than in mechanical ileus.

Distinction must be made between obstructions of the large and small bowel. In cases of colonic obstruction, the patient complains of gas pains, cramps, diarrhea or constipation, blood in the stools, and weight loss. Vomiting is not a prominent feature until late in the disease. On physical examination one finds varying degrees of abdominal distention depending upon acuteness and duration of the obstruction. A scout film of the abdomen will show a distended colon with little if any distention of the small bowel. This is thought to be due to the competency of the ileocecal sphincter, but how often this sphincter is competent in colonic obstruction is not known. A barium enema may reveal the obstructing lesion, but too much importance must not be attached to a negative report. If one inserts a gastric tube, one obtains only clear juice from the stomach. This is an important differential sign; for in small bowel ileus one obtains "feculent regurgitation" upon aspirating the stomach. Also in constradistinction to cases of small bowel obstruction, study of blood chemistry in colonic obstruction is of little value.

Paralytic ileus and partial mechanical ileus on an adhesive basis are ideally treated by siphonage drainage. Strangulation obstruction and acute complete obstruction of the large bowel are never treated conservatively but should be operated upon as soon as possible. Conservative treatment of paralytic and mechanical ileus of the small bowel consists of constant suction applied to an indwelling intestinal catheter Wangensteen or Miller Abbot Tubes), hot packs to the abdomen, fluids and sedatives. Paraoral fluids replace water and electrolytes lost by vomitus, the urine, transudation of fluid into the lumen of the distended bowel, etc. Narcotics should never

be used for fear of masking signs of peritoneal irritation such as occur in strangulating obstructions. Sodium luminal given hypodermically is good for the relief of restlessness.

Conservative treatment does not imply that suction siphonage is all sufficient and that the general condition of the patient may be disregarded. Flat plates of the abdomen must be made every twelve to twenty-four hours, and the clinical status of the patient checked at frequent intervals. In using siphonage drainage it is important that the tube be in or beyond the duodenum, the suction working, the fluid intake and output be carefully computed, the plasma proteins and blood chlorides be checked frequently. A blood transfusion is often wise when the suction is continued over a few days even though the plasma proteins are within normal limits.

Siphonage drainage should not be used in cases of ileus with the idea that if the patient does not improve, he probably does not have a simple ileus and should be operated upon. An attempt to diagnose correctly the type of ileus should always be made before starting therapy.

If one suspects a strangulating obstruction or in cases of simple ileus if suction is unsuccessful in effecting decompression, an operation is in order. At operation if the patient is markedly distended, and if a strangulating obstruction is not present, only an enterostomy should be performed. The importance of an aseptic technique in the performance of enterostomy has been stressed by Wangensteen. Spillage during the performance of an enterostomy in acute intestinal obstruction invariably means death from peritonitis. If a strangulating obstruction is found, freeing of the obstructing mechanism, resection, or exteriorization of the affected bowel should be performed.

The criteria for the relief of intestinal obstruction in the conservatively, as well as the surgically treated cases are the clinical and physical improvement of the patient and the absence of gas in the small bowel by X-ray.

After removal of the siphonage tube the patient should be given a bland or low residue diet č mineral oil. Four to six weeks later a gastrointestinal study with barium sulphate by mouth is performed to rule out any intrinsic obstructing lesion. The insertion of a Miller-Abbott tube down to the suspected site of the obstruction followed by administration of barium through the tube will often aid in diagnosing an intrinsic obstructing mechanism. Occasionally a pneumoperitoneum maybe carried out to note the degree and position of intra peritoneal adhesions. In certain cases of intestinal obstruction secondary to pelvic inflammatory disease, Elliot treatment to the pelvic organs or other forms of fever therapy is given, with or without a subsequent enterolysis.

Patients who present themselves with the abdomen scarred from many previous operations and have symptoms of acute intestinal obstruction, maybe suffering from anorexia nervosa, or chronic morphinism. These patients are best treated by siphonage drainage.

In summary then the problem of acute intestinal obstruction resolves itself into a differentiation between simple and strangulating types of obstruction and acute obstructions of the large and small bowel.

In any case of ileus an integration of history, physical findings, laboratory data, and especially X-ray films, must be made. Suction applied to an indwelling duodenal tube has a definite role in the treatment of acute intestinal obstruction. In acute mechanical and paralytic ileus complete relief of the obstruction may be obtained through this agent alone. In fact the lowest mortality yet reported for mechanical obstruction (8 per

cent) has been with conservative therapy. Strangulating obstructions and acute complete obstructions of the colon should be treated by immediate operation. Siphonage drainage may be used as part of the treatment in these latter types of obstruction but its importance is secondary to operative treatment of the obstructed gut. If the indications and limitations of suction in the management of obstruction are kept in mind, there can be no doubt that a definite lowering of the mortality of acute intestinal obstruction is obtained by this method.

In the past 5 years at South Side Hospital there have been 123 cases of obstruction of the large and small bowel, all definitely proven by X-ray. Seventy-eight cases or 64 per cent were obstructions of the small intestine. The mortality in the cases with simple ileus, that is one on a mechanical or neurogenic basis was 18% —6 deaths in a total of 36 cases. This compares with the national mortality rate of 10—25%. The mortality of acute strangulating obstruction of the small bowel was 40%, or 12 deaths in 32 cases, as compared to national figures of 35—60%. The higher mortality in this latter group is caused by the poor condition of the patient when he is first seen by the physician.

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Return Your Information Card For the Directory Promptly

About September 1, an information card will be sent from the headquarters office of the American Medical Association to every physician in the United States and Canada. The information secured is to be used in compiling the Seventeenth Edition of the AMERICAN MEDICAL DIRECTORY.

The directory is prepared at regular intervals in the Biographical Department of the American Medical Association. The last previous edition appeared in 1940. This volume is one of the most important contributions of the American Medical Association to the work of the medical profession in the United States; it has been especially valuable in the medical preparedness program. In it, as in no other published directory, are dependable data concerning physicians, hospitals, medical organizations and activities. The directory provides full information concerning medical colleges, specialization in the field of medical practice, memberships in special medical societies, tabulations of medical journals and medical libraries and, indeed, practically every important fact concerning the medical profession in which any one might possibly be interested.

Before filling out the information card, read the instructions carefully. Physicians are especially urged to state whether or not they are on extended active duty for the medical reserve corps of the United States Army and Navy. Fill out the card and return it promptly whether or not a change has occured in any points on which information is requested. If a change of address occurs before March 1, 1942, report it at once. Should you fail to receive a card before the first of October, write at once to the headquarters office stating that fact and a duplicate card will be mailed.

THE MEDICAL CRIER

A Page of Sidelights, News and Views in the Medical Field

● "Editor Leaves Town" says the caption on our editorial page. Well, there has been many an editor left town in a hurry for many a good reason, but seldom do they have so nice a place to hide in as Claude has. A famous old plantation near Richmond surrounded by white fences, tall pillars on the front porch, an out-kitchen in the back, slave quarters and barns, with hams hanging in the smokehouse and a mint bed for making juleps. Who would want to be in Youngstown when he can be in Virginia? So the old North Dakota schoolteacher who became a dermatologist in a great steel center now turns out to be a Tidewater gentleman. There's material for a story!

● So they make Mary the Editor. Right over the heads of us ambitious members of the Committee, all hoping to get to sit at that desk some day, too. And they let her write the Editorial and she says that the Crier is enjoyed, if he doesn't get too serious. Ah! that fatal "if", Mary. Do you want to make a comedian out of one who is bursting with the Great Message? There are several kinds of serious writings we prefer to humor. First is the Promotion of the Beautiful Idea which will make the world a Better Place (De Kruif). These ideas are often screwy but the words they use are so pretty. Then there is the Denunciation of the Great Wrong (Pegler Style) written in fiery words and intended to stir you up to Do Something. Maybe you would like some samples First, the Beautiful Idea:

● Doctors are vitally concerned with Traffic Problems in Youngstown. It is very important at times that they get from one place to another as quickly as possible. Being intelligent persons they have most all given the traffic problem considerable thought and have definite ideas about what should be done to eliminate congested areas and bottle necks. But their ideas seldom reach traffic headquarters, and if they do they receive scant attention coming from individuals. This problem should be handled by a Committee of the Medical Society which could make recommendations to the Traffic Commissioner. Such recommendations coming from a large group would receive more serious consideration and might be of value in expediting traffic in Youngstown.

Now if De Kruif were writing the above he would describe the doctor rushing to little Annie's bedside and arriving just too late because of the traffic tie-up in Spring Common, but the idea is the same. Next, the Great Wrong.

● It is all very well to say that the young fellows we examine at the Armory might as well get used to Army methods sooner or later, but they are not in the Army yet and some of them never will be. Besides, this is a medical examination conducted by civilian doctors and not an army drill. When they are required to line up and watch others having blood drawn, each knowing that his turn is coming soon, some of them are bound to be in such a state that they drop over at the first touch of the needle. And when they are allowed to fall and lie on the bare ground of the drill floor, that seems unnecessary hardship. It seems to me that those men could be taken into a room singly and allowed to sit in a chair to have blood samples taken. Furthermore, the Draft Board should supply cots for those who become faint to lie upon. It is to be expected that a few out of every group are going to need them. And no reflection on the man's courage, either.

● Now to appease Mary, we must have a little humor: Did you hear what the firefly said when he backed into the electric fan? De-lighted, no end!

J. L. T.

EARLY DIAGNOSIS OF TUBERCULOSIS

By C. Howard Marcy, M. D.
(Chairman, Committee on Tuberculosis, Medical Society of State of Pennsylvania)
(Medical Director, Tuberculosis League of Pittsburgh)

The early diagnosis of pulmonary tuberculosis, as usually implied, means discovery of the disease at a time when disturbances of body functions caused by the invasion of the tubercle bacillus are just beginning. Frequently, the onset of the disease is insidious, and considerable tissue damage may take place before subjective symptoms appear. Many persons are infected with tubercle bacilli and never show clinical manifestations of illness, while in others, progressive changes of a serious nature develop. Accuracy and time of diagnosis determine, to a large degree, the success of treatment.

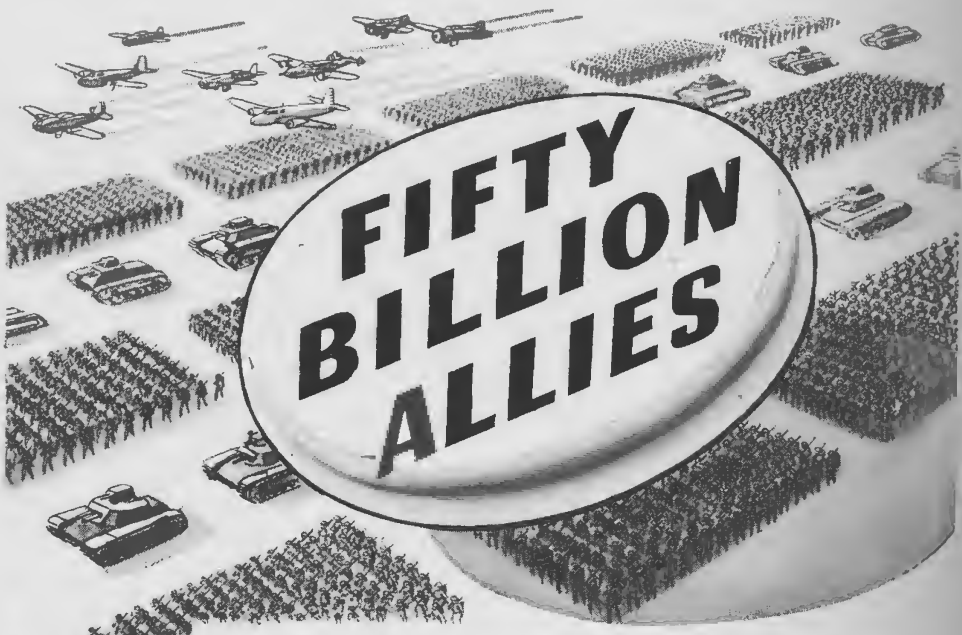
The diagnosis of advanced tuberculosis offers but few difficulties. Early recognition with the correct evaluation of symptoms may not be so simple. Both diagnosis and treatment require careful judgment gained from painstaking study. Fortunately, emergencies are rare in the management of tuberculosis, and hasty decisions are usually unnecessary. It is far better to reserve opinions until all facts have been thoroughly analyzed than to risk an erroneous diagnosis, either positive or negative.

Tuberculosis is no respector of age, nationality or social position. It appears constantly in any medical practice, and frequently under the most unexpected circumstances. For that reason, it should always be in the mind of the examiner in any illness of obscure etiology. We have improved methods of study to aid us, and an enlightened public demands more exact diagnosis than in former years. In order to justify the faith and responsibility imposed upon us by patients, our methods of examination must be thorough and our advice definite.

The diagnosis of tuberculosis is not complete with the determination of the presence of infection, but must include opinions as to activity, stage of development, prognosis and probable length of treatment. The tuberculous patient presents not only a public health problem but an economic problem as well. Treatment involves, in many instances, an entire readjustment of the home. The prolonged period of incapacity necessarily imposed by treatment places a burden upon the average family which must at all times be carefully considered. The early recognition of the disease, in its clinical course, requires detection and interpretation of pathological changes in the lungs; familiarity with the symptoms and a correlation of objective and subjective deviations from normal. Disturbed function manifesting itself in significant symptoms may exist without physical signs. On the other hand, changes in the lung tissue resulting from former illness may be present without symptoms or may be the source of future incapacity. We must differentiate, therefore, between tuberculous infection, clinical tuberculosis and inactive tuberculous pathology. The fact that a fairly large percentage of adults living in urban communities have at one time or another received sufficient infection to make them react positively to the tuberculin test adds to the complexity of the problem.

As yet, no single laboratory test gives an accurate estimate of the activity of the disease. A tuberculin test will detect the presence of tuberculous infection, but the reactions are, to a large extent, qualitative and give little clue to the degree of activity present. The proper use of tuberculin, however, gives diagnostic information of great value.

Tuberculous infants and children in general react more vigorously to



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tuberculin than adults do. The simplicity and slight discomfort of the test make it invaluable in the study of children. A positive tuberculin reaction means the presence of tuberculous infection with a few exceptions. It does not necessarily mean clinical disease. Failure to obtain a positive reaction, except in the presence of acute miliary or generalized tuberculosis or during some of the acute infectious diseases, quite definitely rules out the possibility of tuberculosis. The potency of the tuberculin, dosage and technique are important for satisfactory results. Reliable tuberculin is now available commercially. The Mantoux, or intradermal, test, using the purified protein derivative as the testing agent, has met with general favor. The patch test, while in our experience not quite as accurate as the intradermal method, has some advantages in office use as a contact method of applying tuberculin. It provides a simple means for testing children who object to the use of a needle, and a positive reaction has the same significance as in the intradermal test. A positive tuberculin reaction, however, is only the beginning of a complete medical study.

Clinical disease becomes manifest when changes in lung structure give rise to signs which may be responsible for disturbance of function, both local and general. It is this deviation from the normal that we attempt to recognize by means of symptoms, x-ray study and physical signs. Alterations of body metabolism lead to systemic disturbances, manifesting themselves in symptoms. In early tuberculosis, the symptoms may be present without demonstrable evidence of structural change, or signs may be elicited with no evidence of systemic disturbance, and again both signs and symptoms may be present. In order, therefore, to study any patient thoroughly, a careful history is essential. Of chief importance is the family history, to establish whether or not there has been intimate exposure to tuberculosis in the home. Direct heredity is of no significance. It is a widely accepted opinion, however, that a great deal of the disease in adult life is endogenous from infection in childhood. Exogenous infection in adult life, however, does occur. For that reason, repeated or prolonged contact with the disease should be avoided at any time.

The early symptoms are due to the absorption of toxins and may at first seem entirely unrelated to the lungs. Cardinal symptoms of the disease are lack of endurance, loss of weight, fever, rapid pulse, hemoptysis, pleurisy with effusion, cough and expectoration. Digestive and menstrual disturbances, night sweats and thoracic pain may be clues to pulmonary disease. Hemoptysis is an important symptom of pulmonary disease. It may, however, represent a complication of some previously recognized clinical condition. As a symptom, it must be regarded as a danger signal of possible serious underlying pathology. This fact has been emphasized and re-emphasized, but its true significance is being overlooked constantly in medical practice. The cause of pulmonary bleeding may be readily apparent, or the etiology may remain obscure after the most exhaustive studies. To minimize its importance because of the absence of objective signs will sooner or later lead to disastrous results.

There are many causes for pulmonary bleeding, but tuberculosis predominantly takes first rank as an eitological factor. It can be conservatively estimated that 90 per cent of all frank hemorrhages from the lower respiratory tract are due to tuberculous infections. Conditions such as bronchiectasis, neoplasm, pulmonary suppuration, bronchial membrane ulceration, passive congestion, taken in the aggregate, account for the other 10 per cent. The more general use of the bronchoscope and improved roentgenological technique have brought

to light an increasing number of non-tuberculous causes of pu.monary hemorrhage. Today the clinician who encounters these cases must think not only of tuberculosis but of the large group of other conditions which may be responsible for the bleeding. One of the most perplexing type of patients is the apparently well individual who presents himself because of the expectoration of blood and medical examination fails to reveal the cause of his hemoptysis. When the diagnosis is apparent, treatment naturally falls into established channels. When the source of the bleeding cannot be determined, future handling of the patient becomes more difficult. The time-worn advice of considering the cause of undiagnosed pulmonary bleeding as of tuberculous origin until proved otherwise is a sound medical procedure. This group of patients should be classified as tuberculosis suspects and treated as such until a definite diagnosis is established or continued observation fails to reveal the presence of significant pathology. Observation, to be complete, must include repeated examinations of the sputum for tubercle bacilli, bronchoscopy and serial roentgenograms of the chest. The tuberculin, particularly if negative, will help materially in narrowing the field of pathological possibilities. The bronchial tree should be studied after the instillation of an x-ray opaque oil, when possible.

In tuberculosis, bleeding may occur as an initial symptom or at any time during the course of the disease. It is perhaps a fortunate circumstance when it occurs early. There is no other symptom of pulmonary disease, with the possible exception of pain, that will drive the patient to seek medical advice sooner. Investigation of other prodromal symptoms of tuberculosis, such as cough, expectoration, fatigue or loss in weight, may be unduly delayed by the patient's willingness to explain them to his own satisfaction on some other basis. A mouthful of blood, however, causes a well-justified fear which usually puts him under medical observation. It is estimated that from thirty to fifty per cent of the patients with pulmonary tuberculosis expectorate blood in varying quantities at some time during their illness. Fortunately, the precentage of fatalities from exsanguination is low. Less than three per cent of the mortality from pulmonary tuberculosis is due primarily to loss of blood from hemorrhage. The quantity of blood expectorated may range from blood streaks in the sputum to many ounces. The amount of blood expectorated in no way represents the extent of pathology or its degree of activity. The bleeding may occur in a quiescent process or even in a lesion which is apparently completely healed. Some patients never have hemoptysis throughout their illness, while others have repeated hemorrhages. In the same patient the bleeding may at times be severe and at other times slight. The immediate danger from pulmonary hemorrhage is suffocation from a large amount of blood coagulating and obstructing the bronchi or trachea. In these instances death may result quickly. More to be dreaded, however, is the danger of aspiration of infected bloody material to distant parts of the lung. When the blood is mixed with tuberculous material, a bronchogenic spread of the disease is quite likely to occur.

The so-called idiopathic pleurisy with effusion is so often of tuberculous origin that its occurence calls for careful and prolonged observation of the patient. In approximately six per cent of all cases of tuberculosis, the disease first manifests itself in this way. The presence or absence of fever is of great diagnostic significance. Characteristically, the temperature of tuberculous patients is normal or sub-normal in the morning, gradually increasing in the afternoon until a maximum is reached sometime between four and eight o'clock in the

evening. A rapid or irritable heart may be a manifestation of tuberculous toxemia. The pulse rate in active tuberculous disease is usually rapid. Cough and expectoration are not as a rule early symptoms of tuberculosis but are frequently present by the time the patient consults his physician. Too frequently, other symptoms of disturbed function are ignored until the presence of a cough compels the victim to seek relief. The thick, heavy, yellow sputum from discharging tubercles in the lung is quite typical, and in it tubercle bacilli will sooner or later be found.

When tubercle bacilli are present in the sputum, pathological changes of a serious nature have already taken place. Tubercle bacilli are indisputable evidence of disease but it should be remembered that a persistently negative sputum does not alone rule out the possibility of clinical tuberculosis. The examination of sputum for tubercle bacilli is a simple laboratory procedure, and the availability of public laboratories at the present time makes failure to have the sputum examined inexcusable. Modern practice cannot accept as final sputum reported negative by the direct staining method. Concentrated smears from twenty-four-hour specimens, guinea pig innoculations, cultures or examination of gastric washings will give a higher percentage of positive findings.

On physical examination, the most constant and significant sign of tuberculosis of the lungs is a shower of medium coarse, moist rales which are constant and heard at the beginning of inspiration following a diagnostic cough. They are most frequently found over one or the other apex, in the first or second interspace or above the spine or the scapula. Tuberculosis lesions are situated most often in the upper lobes of the lungs.

A correct diagnosis must be based on the proper evaluation of findings. Tubercuolsis patients fall into two groups,—those with positive sputum and those with negative sputum. The persistence of tubercle bacilli in the sputum is irrefutable evidence of tuberculosis with or without signs or symptoms. A negative sputum, however, does not exclude the possibility of tuberculous infection, and the diagnosis must be established by other evidence of the disease.

The cardinal points to take into consideration are suggestive symptoms, x-ray evidence of parenchymous changes, persistent rales in the upper areas of the lungs, unexplained hemoptysis and ideopathic pleurisy with effusion. The presence of two or more of these in combination usually justifies a diagnosis of clinical tuberculosis when tubercle bacilli cannot be found in the sputum. While localized evidence of pathology is of great importance in establishing a diagnosis, it is on the general symptoms that we must depend, to a large degree, to determine the state of activity or the need for treatment. When in doubt, serial x-rays and observation of the blood sedimentation rate over a period of time will be helpful.

Tuberculosis continues to be one of the chief causes of premature death, chronic invalidism and social dependence. It is still a pandemic infection for which we have discovered no specific curative or preventive measures. While the disease recognizes no geographic boundaries, no age, race or economic status, certain reservoirs of infection become apparent with a general lowering of the death rate. Responsibility of diagnosis rests with the medical profession. In the usual course of events, patients do not seek medical advice until symptoms are present. With tuberculosis, serious pathology may exist long before these symptoms appear and delay the diagnosis. Many of our present concepts of practice will have to be revised if tuberculosis is to be diagnosed before it becomes communicable.

President's Page

(Continued from Page 268)

the services of the internist or specialist and gladly pay his fees for an exhaustive physical examination to rule out, not only syphilis and other venereal diseases, but also any other physical or mental condition which might mar the marital happiness of the young couple or be transmitted to their off-springs.

"We know what we are but know not what we may be."—Wm. Shakespeare.

O. J. WALKER, M. D. PRESIDENT.

About sixty-five per cent of the patients who apply for institutional care are already in an advanced stage of the disease. If this situation is to be corrected, improved case-finding methods must be developed. There must be health education of a type that will reach every home and every individual. The public must be better informed about the dangers of contact with infectious patients, and of the insidious nature of the disease. Experience has taught that minimal infections, in most instances, cannot be diagnosed by waiting for symptoms to appear or by physical examination alone. It is generally recognized that an x-ray of the chest is essential to discover early pathology. X-ray examination of those groups where high incidence of disease is known to exist is the most effective method of finding unsuspected cases. Rapid x-ray technique is now available for group examinations, and a wider application of its use will reveal many early cases. Tuberculosis will continue to go undiscovered until a chest x-ray is routine in every diagnostic study. Many early, symptomless patients will be found by group x-ray studies of the apparently healthy.

Analysis of present-day tuberculosis mortality figures points the way to future effort in tuberculosis control. In young adults tuberculosis is a most destructive disease. More than one-half, or 50.8 per cent of the 4,195 deaths from tuberculosis in Pennsylvania in 1939 were between the ages of fifteen and forty-five years. Concentration of effort is important in this young adult group.

Tuberculosis among Negroes is a serious problem. The Negro death rate from tuberculosis in Pennsylvania is five times that of the White. In 1939 Negroes provided 21 per cent of the deaths from tuberculosis and yet they constitute but 4 per cent of our State population. The Negro physician in private practice is an important factor in the control of tuberculosis. About 90 per cent of the Negro population receive their medical service through the Negro physician. If they are to bear their full share of responsibility, greater clinic facilities and more Negro physicians trained in the diagnosis and treatment of tuberculosis are needed.

Increased attention is being given to the influence of industry on tuberculosis. Certain types of work undoubtedly tend to aggravate the disease. Prolonged contact with abrasive dust, particularly silica, is known to be a definite hazard. The chief factors of occupation, however, are the wage level and standard of living. Studies made in Pittsburgh on the relation of tuberculosis mortality to economic and environmental status reveal the chances for tuberculosis to be approximately three and one-half times greater in the poor man's family than in the family of the well-to-do, if death rate is used as an index.

The physician in practice has a great responsibility. He alone can make the diagnosis and upon his advice rests the medical welfare of the patient. His responsibility does not stop with detection of the disease but must include advice which will protect those with whom the patient is in contact. Tuberculosis will continue to be a menace as long as infectious patients go unrecognized. Early diagnosis is the keystone around which successful treatment and preventative measures must be built.

SINCE LAST MONTH—

Dr. Alice W. Elliott announces the removal of her office to 324 Dollar Bank Bldg.

Dr. W. E. Maine announces the removal of his office from Campbell, O., to 507 Central Tower, Youngstown, O.

Dr. J. J. Wasilko will return from active service with the United States Army about Sept. 2nd, and resume his practice at 324 Dollar Bank Bldg.

Dr. and Mrs. S. Rosenblum and sons, Jerold and Richard, spent two weeks in Chicago where Dr. Rosenblum took special work at the Michael Reese Hospital.

Dr. and Mrs. Orrin W. Haulman have taken possession of their new home on Sampson Road.

Dr. and Mrs. Harry Fusselman and sons, Randolph King and Harry Elton, Jr., have been vacationing at Virginia Beach, Va.

Dr. and Mrs. D. M. Rothrock have returned from a 24 day western tour, having gone as far as San Francisco, Calif.

Dr. Donald A. Gross and Dr. Walter B. Turner made use of the local airport on their trip to the West Coast. Dr. Turner visited his brother William P. Turner while in Los Angeles.

Dr. and Mrs. A. J. Brandt announce the birth of a son, Renick Magoffin Bell Brandt, Sunday, August 24th, at St. Elizabeth's Hospital.

Dr. and Mrs. Wendell H. Bennett have returned from a seven-week stay in Boston, Mass., where Dr. Bennett took postgraduate work in Internal Medicine at Harvard University Medical School.

Dr. Charles H. Warnock spent two weeks in Chicago taking postgraduate study in cardiology at Michael Reese Hospital.

Dr. Samuel Epstein, former Struthers physician who now is a first lieutenant in the U. S. Army Medical Corps, spent a 10 day furlough the first part of August at his home, 168 Poland Ave., Struthers. Dr. Epstein is statoned at the hospital, Fort Jackson, S. C.

Drs. Jones, Kocialek, J. Nagle, Osborne, Poling, J. M. Ranz, Scarnecchia and Wenaas are on a ten day fishing trip to the Canadian wilds. Drs. Kupec and Marinelli, who are usually members of this party were detained in town and plan to take their trip later in the season.

Dr. Eleanor Cheydleur has taken over Dr. McDonough's office during his period of post-graduate studies in gynecology and obstetrics.

Lieutenant N. D. Belinky, former resident interne at St. Elizabeth's Hospital was transferred to the Philippines and is now stationed there.

Lieutenant and Mrs. S. D. Goldberg were in the city for ten days recently. Dr. Goldberg was on leave from Camp Davis, North Carolina.

Dr. and Mrs. James L. Fisher and their family, James L. Jr., Margaret and Robert have arrived home after a motor trip to Atlantic City, New York and Boston.

Dr. and Mrs. Lewis K. Reed are traveling in Canada for a few weeks vacation.

Dr. B. F. Goldstein has returned from a 10 day vacation in Ferndale, N. Y.

Dr. and Mrs. Asher Randall, now residing in Fayetteville, N. C., where Dr. Randall is with the medical corps, U. S. Army, announce the birth of a daughter, Betty, on Aug. 6.

Dr. and Mrs. Samuel Wood Weaver, Dr. and Mrs. John Noll and Dr. and Mrs. Gordon Nelson have returned from a vacation in Canada.

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ORTHO-CREME ORTHO DIAPHRAGMS

BRIEF HISTORICAL NOTES ON MEAD'S CEREAL AND PABLUM

HAND in hand with pediatric progress, the introduction of Mead's Cereal in 1930 marked a new concept in the function of cereals in the child's dietary. For 150 years before that, since the days of "pap" and "panada," there had been no noteworthy improvement in the nutritive quality of cereals for infant feeding. Cereals were fed principally for their carbohydrate content.

The formula of Mead's Cereal was designed to supplement the baby's diet in minerals and vitamins, especially iron and B_1. How well it has succeeded in these functions may be seen from two examples:

(1) As little as one-sixth ounce of Mead's Cereal supplies over half of the iron and more than one-fifth of the vitamin B_1 minimum requirements of the 3-months-old bottle-fed baby. (2) One-half ounce of Mead's Cereal furnishes all of the iron and two-thirds of the vitamin B_1 minimum requirements of the 6-months-old breast-fed baby.

That the medical profession has recognized the importance of this contribution is indicated by the fact that cereal is now included in the baby's diet as early as the third or fourth month instead of at the sixth to twelfth month as was the custom only a decade or two ago.

In 1933 Mead Johnson & Company went a step further, improving the Mead's Cereal mixture by a special process of cooking which rendered it easily tolerated by the infant and at the same time did away with the need for prolonged cereal cooking in the home. The result is Pablum, an original product which offers all of the nutritional qualities of Mead's Cereal, plus the convenience of thorough scientific cooking.

During the last ten years, these products have been used in a great deal of clinical investigation on various aspects of nutrition, which have been reported in the scientific literature.

Many physicians recognize the pioneer efforts on the part of Mead Johnson & Company by specifying Mead's Cereal and PABLUM.

Pablum is a palatable mixed cereal food, vitamin and mineral enriched, composed of wheatmeal (farina), oatmeal, cornmeal, wheat embryo, beef bone, brewers' yeast, alfalfa leaf, sodium chloride, and reduced iron.

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